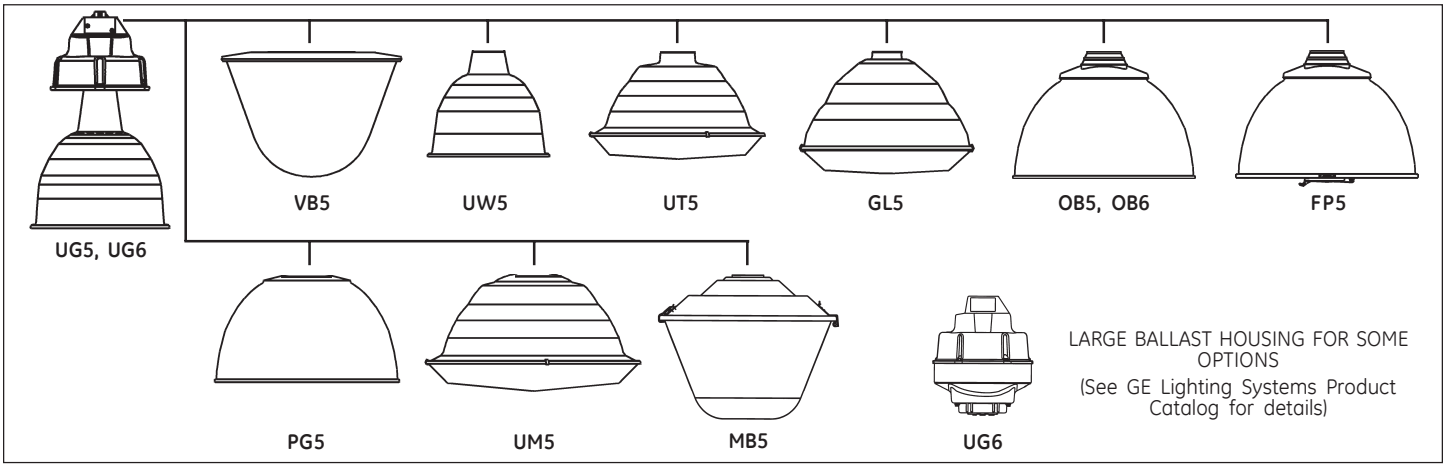
GE
Lighting Solutions

GEH-5861E

INSTRUCTIONS
Industrial Luminaires
Installation and Maintenance



READ THOROUGHLY BEFORE INSTALLING
SAVE THESE INSTRUCTIONS FOR FUTURE USE

WARNING

Risk of electric shock
- Turn power off before servicing

CAUTION

Risk of injury
- Wear safety glasses and gloves during installation and servicing

CAUTION

Risk of burn
- Do not touch operating luminaire

GENERAL

This luminaire is designed for indoor applications only, and should be installed and maintained according to these instructions.

NOTE: The maximum fixture ambient temperature rating is the LESSER of the ratings indicated on the ballast and optical assemblies.

All luminaire refractors and lenses made of acrylics or polycarbonates will yellow over time with exposure to heat and ultraviolet (UV) light. The rate of yellowing is determined by the specific material, any additives and coatings, the operating temperature, and the amount of UV exposure. Yellowing can reduce the light output and lower the impact resistance of acrylic or polycarbonate opticals.
In no case should the maximum lamp wattage listed for the luminaire be exceeded. Contact the factory for more information.

UNPACKING

This luminaire has been properly packed to avoid damage during transit. Inspect the luminaire to confirm there is no damage. Do not install a damaged luminaire or damaged luminaire components.

NOTE: The luminaire is supplied with a hanger hub and locking nut which are threaded together, and are included in the ballast housing carton.

INSTALLATION

WARNING

Risk of fire
- Keep combustible materials away from lens
- Use lamps specified on the "luminaire fitting" nameplate
- Maintain a minimum of 3 feet clearance below the luminaire

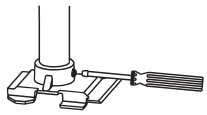
CAUTION

Unit will fall if not installed properly
- Follow installation instructions

CONDUIT MOUNTING

1. Fasten the mounting plate (minimum of five full turns) to a 3/4-inch conduit by threading the mounting plate onto the conduit. See Figure 1.
2. Tighten the set screw to lock the mounting plate to the conduit.
3. Loosen the set screw on the top corner of the ballast housing.
4. Loosen the wiring box door screws on the ballast housing to allow the wiring box door to pivot.
5. Pivot the wiring box door 180 degrees to allow the mounting plate room to slide onto the ballast housing.
6. Slide mounting plate onto ballast housing, making sure that the upper rim of the ballast housing slides into the rails of the mounting plate. (Figure 2)
7. Tighten the set screw on the top corner of the ballast housing so that the mounting plate cannot back out.
8. After wiring is complete, pivot the wiring box door back into the original position and tighten the two wiring box door screws.

Figure 1



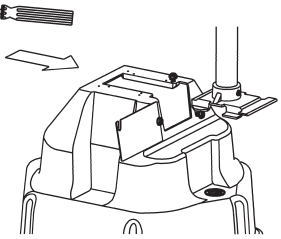


Figure 2

FLEXIBLE MOUNTING

If flexible mounting accessories (hook or loop) are supplied separately, follow the instructions above for conduit mounting .

CAUTION: If this instruction is not followed damage to the mounting parts can occur causing the fixture to fall. When using hook or loop fixture mounting, do not apply luminaire weight when the mating parts are as shown in Figure 3. Do not apply any twisting action to the hook and loop assembly. When properly installed the hook and loop assembly is shown in Figure 4.

Figure 3

Figure 4

WET LOCATION OPTION

(Water tight seal bwteen conduit and hub)

1. Fasten hanger hub securely (minimum of five full turns) to 3/4-inch conduit by threading locking nut and hanger hub assembly onto conduit. See Figure 5.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to GE Lighting Solutions.

2. Orient any one of arrows on bottom of hanger hub in direction that you wish a flat side of ballast housing to face.
3. Tighten set screw to lock hanger hub to conduit.
4. Loosen locking nut until free to move up conduit.
5. Twist supply leads. Slip ballast housing onto hanger hub and position housing approximately 30 degrees counter-clockwise from final desired position.
6. Rotate housing clockwise until seated on hanger hub with wiring box facing in desired direction.

NOTE: Check for proper seating by trying to rotate assembly counter-clockwise while it is supported by the hanger hub.

7. Hand tighten locking nut against ballast housing. When installing units provided with a gasket between hanger-hub and locking nut, be sure to tighten nut securely so that gasket is compressed fully around pipe nipple to prevent entrance of moisture.

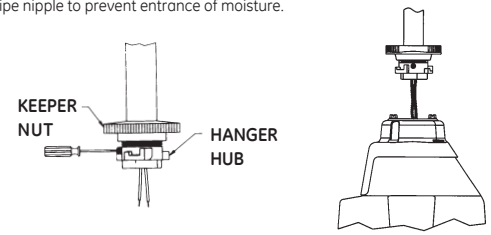


Figure 5

WIRING

Make all electrical connections in accordance with the National Electrical Code and any applicable local code requirements.
Verify that supply voltage is correct by comparing it to the ballast assembly nameplate.
If unit is designated as multivolt or multiwatt, follow the specific instructions.

Single Voltage Units: Installer needs to connect supply and ground conductors to the fixture's primary leads and ground wire. These wires are located on the small wiring harness that contains the 9-pin plug. After these wires are connected, the 9-pin plug wired in the fixture needs to be mated with the 9-pin plug wired to the supply conductors if not already connected.

Multivolt Units: (Connectable for 120, 208, 240, 277 volts)

CAUTION: Do not remove insulated connectors from wires not needed for required voltage connection.

Select the proper wires from the connection diagram on the unit. Connect the specified wires by using crimp connectors on the wires. These crimp connectors are sized for 14-16 AWG. For other AWG sizes remove the crimp connector(s) provided and use other appropriate approved connector(s).

Multi-Watt Units: See procedure under Multivolt above.

NOTE: Attach ground conductor to the green ground wire supplied with the fixture.

9-Pin Plug Removal: Removal of the 9-pin plug does not hinder the electrical performance of the luminaire, but its removal does negate the GELS diagnostics meter compatibility.

FINAL ASSEMBLY

OPTICAL ASSEMBLY/MOUNTING—

OB5, OB6, UG5, UG6, UW5, UM5, UT5, GL5, VB5, MB5

1. Secure the reflector to bottom of the ballast housing as shown in Figure 6. Installation is aided by key hole slots in the reflector. On **VB5** and **MB5** units with safety chains, orient the reflector so that the ballast and reflector safety chain holes are on the same side.

1a. On **VB5** units push the reflector mounting bracket thru the reflector opening and slide it over the socket brackets all the way. On 400 watt Metal Halide units the top (first) hole of the mounting bracket will snap over the socket bracket screws. On all others, the bottom (second) hole will snap over the bracket screws. See Figure 7.
For additional assembly instructions, refer to the instruction sheet that came in the small box with the metal reflector and mounting bracket.

2. Refer to **LAMP INSTALLATION** and screw lamp into socket.
3. For enclosed units, close the door and secure it properly in place by latching first latch opposite hinge, followed by other latches.

NOTE: If VB5 unit has a SAFETY LIGHT option, clip the quartz socket over the socket bracket leg and reflector bracket leg in a horizontal position as shown in Figure 7.

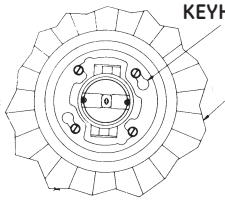


Figure 6

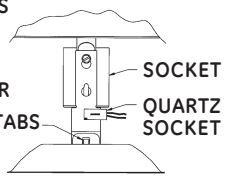


Figure 7

LAMP INSTALLATION/REPLACEMENT

CAUTION

Risk of burn
- Allow lamp/fixture to cool before handling

LAMPS

The light output of a luminaire is dependent on the age of lamp. In applications where light level is critical it may be desirable to replace lamps before they burn out. Lamp manufacturer's can provide data showing how lamp light output decreases with use and recommended replacement intervals.

CAUTION: Use only lamps specified on nameplate. Observe lamp manufacturer's recommendations and restrictions on lamp operation, ballast type, burning position, handling, and disposal.

LAMP BODY TIGHTNESS

The lamp should be inserted and tightened to the **NEMA-EEI** specified torque of 35 inch-pounds. Tightening must be sufficient to fully depress and load center contact of socket. This is best achieved by very firmly tightening to insure application of sufficient torque.
If the unit has a **SAFETY LIGHT** option, insert the quartz lamp in its socket making sure to wipe any fingerprints off lamp.

NOTE: Use of lubricants on lamp bases or sockets can cause rapid lamp failure and voids your fixture warranty.

SAFETY LIGHT OPTION

The **SAFETY LIGHT** option (Auxiliary Quartz Lamp), if used, must be rated for 120V and from 100 to 250 Watts. When power is applied, the Auxiliary Quartz Lamp, (if used) will immediately turn on. As the HID Lamp strikes and warms up, the Auxiliary Quartz Lamp will automatically shut down.
During normal HID Lamp operation, if the power is interrupted, the HID Lamp will extinguish and the Auxiliary Quartz lamp will turn on, until the HID Lamp restarts. After the HID Lamp restarts, the Auxiliary Quartz Lamp will automatically shut down.
Should the HID Lamp fail to start, the Auxiliary Quartz Lamp will provide back up lighting. If the HID Lamp completely fails to start, replace the HID Lamp.

SAFETY CHAINS

CAUTION

Unit will fall if Safety Chain is not installed properly
- Safety chains must be installed as described below.

Safety chains and attachment accessories are available from the factory as an optional accessory for both ballast and optical assemblies. Safety chains should be attached with minimum slack. Luminaire safety chains must be installed in a manner which prevents the luminaire from falling more than six (6) inches before it is caught by chain.
To install a ballast safety chain, insert the "S" hook through the hole in the ballast housing and crimp shut.
To install optical safety chain, insert "S" hook through a link in ballast safety chain and crimp shut. Use the snap hook to attach to the clip or hole on the optical as shown in Figure 8.

MAINTENANCE AND CLEANING

The interior and exterior surfaces of open opticals and the exterior surface of lens doors on enclosed opticals require periodic cleaning to maintain light levels. The required frequency of cleaning depends on the ambient dirt level and the minimum light level which is acceptable to the user. Optical surfaces should be cleaned by washing in a solution of warm water and a mild, non-abrasive household detergent, rinsed with clean water, and wiped dry with a soft

non-abrasive towel. Should an enclosed optical assembly become dirty on the inside, clean the reflector and the lens door in above noted manner. Inspect and replace any damaged gaskets.

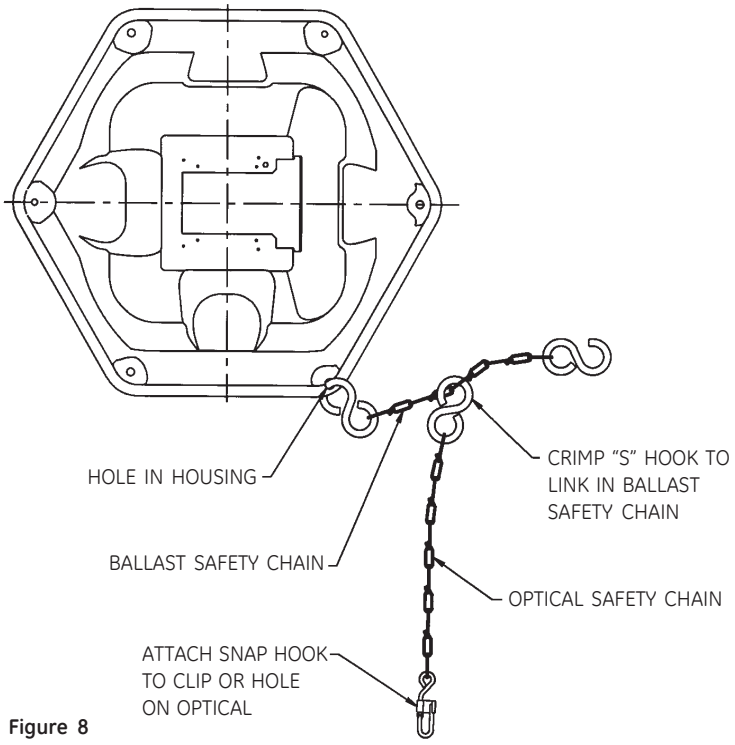


Figure 8

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